



## Beijing Workshop – The Global Multi-Hub Network



After a slow start in Year 1, the 4D4Life Global Multi-Hub Network gathered momentum at a workshop in Beijing (16/17 February 2011), and is now going ahead with a pilot implementation and establishing links with the Global Names Architecture (GNA) community. Keping Ma and Liqiang Ji hosted the workshop at the Institute of Botany on behalf of the Chinese Academy of Sciences, with 4D4Life partners from Europe, New Zealand and Australia. An outline concept was agreed for a Multi-Hub Portal that would show the regional checklists side-by-side and enable cross-walks and a variety of analyses. It was agreed that the CoL and the regional checklists need to establish a 'Global Taxon Architecture' that can be integrated with the tools being developed by the GNA. The pilot project is led by Liqiang Ji from the Institute of Zoology on the Olympic Science Park in central Beijing.

## OpenBio – Europe links with Brazil

Species 2000 and our Brazilian Partners at CRIA in Campinas, São Paulo State, have been funded in the EU-Brazil OpenBio Project. The goal is to provide an interoperable platform for scientific working that is shared across Europe and Brazil – using the D4Science platform, and the Cloud computing of Venus-C.

Our part is to provide a test exemplar in biodiversity – cross-mapping a sample taxonomy from the Brazilian Hub in the Multi-Hub Network with the corresponding taxonomy in the global Catalogue. This will provide a real example of the tasks in the Multi-Hub Network (4D4Life WP4), and utilise tools being prepared in the new i4Life Project (CoL Cross-mapping and CoL Piping tools).



## Spotlight on a contributing global species database

### 44,632 species from WoRMS from 18 WoRMS global databases in AC11

**Author: Ward Appletans**

The World Register of Marine Species (WoRMS) is a global taxonomic database of marine species (some taxa include their non-marine representatives), and is controlled by an editorial board of 240 taxonomists from 176 institutions in 33 countries. WoRMS received sponsorship from several projects and organizations and the Flanders Marine Institute (VLIZ) provides permanent support to editors and hosts and manages the database.

The database is updated on a daily basis and in February 2011 contained >400,000 taxa, including over 205,000 valid species names (85% of total known) and 130,000 synonyms; 38,000 common names; 15,000 images; 140,000 literature references, and other information including 11,000 type specimens; >300,000 species distributions (linked to our marine gazetteer) and ecology (e.g. >16,000 parasites linked to their host species). The database integrates geographic (e.g. Europe, Antarctica), thematic (e.g. toxic microalgae) and taxonomic (e.g. World Porifera Database) perspectives. WoRMS also provides web services and an intelligent semi-automated species names validation service used by the wider scientific community. The database is licensed to over 60 organizations for their use in quality control of species names. The website has around 3,000 unique visitors (different IP addresses) every day and 2 million web hits per month.



- World Asteroidea Database
- World List of Bochsacea
- Brachiopoda & Phoronida World Databases
- World List of Brachypoda
- World Marine Bryozoa Database
- Cumacea World Database
- World List of Marine, Freshwater and Terrestrial Isopod Crustaceans
- World List of Mystacocarida
- World List of Nemertea
- World List of Marine Oligochaeta
- World Ophiuroidea Database
- World List of Polychaeta
- World Porifera Database
- World database of Proseriata & Kalyptorhynchia
- World Remipedia Database
- World List of Tantulocarida
- World List of Thermosbaenacea and Xenoturbellida